Subject: PostgreSQL: serious mistake when call GetInsertedId()
Posted by sergeynikitin on Tue, 30 Sep 2014 22:24:57 GMT
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In a function body of GetInstertedId() it is supposed that the field name of primary key will always have the name id.

```
Value PostgreSQLConnection::GetInsertedId() const
{
 Sql sql("select currval('" + last_insert_table + "_id_seq')", session);
 if(sql.Execute() && sql.Fetch())
  return sql[0];
 else
  return Null;
}
```

(uppsrc/PostgreSQL/PostgreSQL.cpp)

But in a case when it not so, becomes difficult an audible error.

SQL expression for request of a column of primary key here:

```
SELECT
  pg_attribute.attname,
  format_type(pg_attribute.atttypid, pg_attribute.atttypmod)
FROM pg_index, pg_class, pg_attribute
WHERE
  pg_class.oid = 'TABLENAME'::regclass AND
  indrelid = pg_class.oid AND
  pg_attribute.attrelid = pg_class.oid AND
  pg_attribute.attnum = any(pg_index.indkey)
  AND indisprimary
```

Respectively I suggest to modify function. For example so:

```
Value PostgreSQLConnection::GetInsertedId() const
{
 String sqlc_expr;
 sqlc_expr <<
 "SELECT " <<
   "pg_attribute.attname " <<
 "FROM pg_index, pg_class, pg_attribute " <<
 "WHERE " <<
   "pg_class.oid = '" << last_insert_table << "'::regclass AND " <<
   "indrelid = pg_class.oid AND " <<
   "pg_attribute.attrelid = pg_class.oid AND " <<
   "pg_attribute.attnum = any(pg_index.indkey) " <<
   "AND indisprimary" ;
 Sql sqlc( sqlc_expr );
 if( !(sqlc.Execute() && sqlc.Fetch()) )
```

```
 return Null;
Sql sql("select currval('" + last_insert_table + "_"+AsString(sqlc[0])+"_seq')", session);
if(sql.Execute() && sql.Fetch())
 return sql[0];
else
 return Null;
}
```

Subject: Re: PostgreSQL: serious mistake when call GetInsertedId()
Posted by mirek on Wed, 01 Oct 2014 18:37:21 GMT
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Well, it was "by design" (as it is a good common practice to name numeric synthetic primary keys "ID" anyway), but your solution is definitely better.

But I would/will add caching because the column for given table does not change....

Mirek

Subject: Re: PostgreSQL: serious mistake when call GetInsertedId()
Posted by mirek on Wed, 01 Oct 2014 18:49:23 GMT
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Like this:

```
Value PostgreSQLConnection::GetInsertedId() const
{
 String pk = session.pkache.Get(last_insert_table, Null);
 if(IsNull(pk)) {
  String sqlc_expr;
  sqlc_expr <<
  "SELECT " <<
    "pg_attribute.attname " <<
  "FROM pg_index, pg_class, pg_attribute " <<
  "WHERE " <<
    "pg_class.oid = '" << last_insert_table << "'::regclass AND "
    "indrelid = pg_class.oid AND "
    "pg_attribute.attrelid = pg_class.oid AND "
    "pg_attribute.attnum = any(pg_index.indkey) "
    "AND indisprimary";
  Sql sqlc( sqlc_expr );
  pk = sqlc.Execute() && sqlc.Fetch() ? sqlc[0] : "ID";
  session.pkache.Add(last_insert_table, pk);
 }
```

```
 Sql sql("select currval('" + last_insert_table + "_" + pk +"_seq')", session);
 if(sql.Execute() && sql.Fetch())
  return sql[0];
 else
  return Null;
}
```

Subject: Re: PostgreSQL: serious mistake when call GetInsertedId()
Posted by sergeynikitin on Thu, 02 Oct 2014 13:37:46 GMT
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yes, it's better!

Subject: Re: PostgreSQL: serious mistake when call GetInsertedId()
Posted by mirek on Wed, 22 Oct 2014 09:04:13 GMT
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A have changed the code again:

Since 8.1 (released 2005) PGSQL has a nice little function "lastval()", which does exactly the same thing. GetInsertedId now changed to use that.

Mirek
